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10/537,441

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Michihiro Ota

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EXAMINER

OBEID, MAMON A

ART UNIT

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3621

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,441	<b>Applicant(s)</b> OTA, MICHIIRO	
	<b>Examiner</b> MAMON OBEID	<b>Art Unit</b> 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24 -28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24- 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/09/2008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

***DETAILED ACTION***

***Continued Examination Under 37 C.F.R. §1.114***

1. A request for continued examination ("RCE") under 37 C.F.R. §1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 09, 2008 has been entered.

***Acknowledgments***

2. This is in reply to the RCE noted above and filed on January 09, 2008.
3. Claims 1- 23 have been canceled.
4. Claims 24, 25 and 26 have been amended.
5. Claims 24- 28 are currently pending and have been examined

***Claim Objections***

6. Claim 24 is objected to because of the following informalities: the claim recites the limitation "... and determining that the card information included in the car issuing information is valid..." The word "car" is misspelled and appropriate correction is required.

***Claim Rejections - 35 USC §112 2<sup>nd</sup> Paragraph***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 24-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 24 recites the term *"the card information"* in the fifth limitation. There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the Examiner interprets the term *"the card information"* as the *"the card issuing information"* recited earlier in the claim. If the Applicant believes that the *"card information"* and the *"card issuing information"* are distinct, the Applicant needs to point out the distinction between the two terms.

b. Claim 24 recites the limitation "a fourth generating means for encrypting the first information separated by the separating means with the second key to generate corresponding second information corresponding to the second information" which renders the claim vague and indefinite. There is insufficient antecedent basis for this limitation in the claim. It is unclear to the Examiner what the term "the second information" is referring to. The term "second information" has been recited twice prior to the term "the second information", specifically in the sixth and ninth limitation of claim 24.

c. Claim 24 recites the limitation *"a separating means for separating the first information and the second information from the card issuing information received from the mobile communication terminal"*. It is unclear to one of

ordinary skill in the art if the *"first information"* and the *"second information"* ever combined or synthesized into the *"card issuing information"*. It is the Examiner's understanding that the *"first information"* and the *"second information"* are synthesized to generate the *"third information"* not the *"card issuing information"*. For examination purposes, the examiner interprets the *"card issuing information"* as the *"third information"*.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 24- 28 are rejected under U.S.C 103 (a) as being unpatentable by Park et al (U.S. 2002/0194137 A1)("Park") in view of Haynes III et al. (U.S. 6,161,181)("Haynes").

11. **As per claim 24:** Park discloses the following limitation:

- *a card information issuing server to issue card issuing information device (see at least paragraph [0136], Figure 3 and related text);*
- *a mobile communication terminal to receive the card issuing information issued by the card information issuing server through wireless communication*

- and to store the received card issuing information terminal (see at least paragraph [0136], Figure 3 and related text);*
- *a sales processing device to receive the card issuing information from the mobile communication terminal and to perform sales processing based on the card issuing information (see at least paragraph [0136], Figure 3 and related text);*
  - *a settlement device to collect sales information from the sales processing device and to perform settlement processing on the sales information (see at least paragraph [0005], Figure 2 and related text);*
  - *wherein the card information issuing server comprises: a first generating means for encrypting the card information with a first key to generate first information (see at least paragraph [0052];*
  - *a second generating means for encrypting the first information generated by the first generating means with a second key to generate second information (see at least paragraph [0052]);*
  - *a fourth generating means for encrypting the first information separated by the separating means with the second key to generate corresponding second information corresponding to the second information (see at least paragraph [0052]);*
  - *a determination means for comparing the corresponding second information generated by the fourth generating means with the second information separated by the separating means with and determining that the card information included in the card issuing information is valid when the*

*corresponding second information coincides with the second information encrypted by the encryption means (see at least paragraph [0271]);*

- *a sales performing means for performing sales processing based on the card issuing information when the card information is determined to be valid by the determination means (see at least paragraph [0287]);*

**12.** Park further discloses multiple card information encryption (see at least paragraphs [0184] and [0188]), but does not explicitly disclose *a third generating means for synthesizing the first information and the second information to generate third information and wherein the sales processing device comprises: a separating means for separating the first information and the second information from the card issuing information received from the mobile communication terminal*. However, Haynes, III et al., discloses means for packaging encrypted, double encrypted and/or digitally signed information (see at least Figure 7 and related text). Haynes further discloses separating means for separating two pieces of information in a package or in an envelope (see at least column 10, lines 45- 61 and Figure 4A).

**13.** Therefore, It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Park's teachings to include information that is encrypted in multiple stages and/ or includes digital signatures; wherein this information is to be synthesized or packaged together to form one common file, package or envelope to enhance privacy and to provide substantial improvements in security (see in Haynes column 12, lines 54- 62).

14. **As per claim 25:** Park further discloses multiple card information encryption (see at least paragraphs [0184] and [0188]), but does not disclose *wherein the card issuing information is information which is prepared by encrypting the third information with a third key, and the separating means separates the first information and the second information after decrypting the card issuing information with the third key*. However, Haynes, III et al., discloses means for packaging encrypted, double encrypted and/or digitally signed information (see at least Figure 7 and related text). Haynes also discloses separating means for separating two pieces of information in a package or envelope (see at least column 10, lines 45- 61 and Figure 4A).

15. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Park's teachings to include information that is encrypted in multiple stages and/ or includes digital signatures; wherein this information is to be synthesized or packaged together to form one common file, package or envelope to enhance privacy (see in Haynes column 12, lines 54- 62).

16. **As per claim 26:** Park discloses *wherein the second key is generated by using a password managed in confidence between the card information issuing server and the sales processing device or at least a part of the card information* (see at least paragraph [0271] and Figure 66).

17. **As per claim 27:** Park discloses *wherein the sales processing device is an automatic vending machine, which comprises sales permitting means for permitting the sales transaction using the card issuing information when the card information is*



*determined to be valid by the determination means; and*  
*storing and accumulating means for storing and accumulating sales price information*  
*related to the sales transaction together with the first information when the sales*  
*transaction permitted by the sales permitting means is executed (see at least paragraph*  
*[0223]).*

**18. As per claim 28:** Park discloses the following limitations:

- *collecting means for collecting the first information accumulated in the sales processing device and the sales price information; decryption means for decrypting the first information collected by the collecting means with the first key to obtain the card information* (an optical settlement operation wherein credit information is transmitted to the card company and wherein the card company performs a decryption process corresponding to the repeated encryption process (see at least paragraph [0196])).
- *settlement means for performing settlement processing on the sales price information based on the card information decrypted by the decryption means* (a sale particulars settlement process wherein the sale particulars are recorded and stored (see at least paragraph [0223])).
- The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire

reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

19. Although Applicant(s) use “means for” in the claim(s) (e.g. claims 24- 28), it is the Examiner’s position that the “means for” phrase(s) do not invoke 35 U.S.C. 112 6<sup>th</sup> paragraph. If Applicant(s) concur, the Examiner respectfully requests Applicant(s) to either amend the claim(s) to remove all instances of “means for” from the claim(s), or to explicitly state on the record why 35 U.S.C. 112 6<sup>th</sup> paragraph should not be invoked.

20. Alternatively, if Applicant(s) desire to invoke 35 U.S.C. 112 6<sup>th</sup> paragraph, the Examiner respectfully requests Applicant(s) to expressly state their desire on the record. Upon receiving such express invocation of 35 U.S.C. 112 6<sup>th</sup> paragraph, the “means for” phrase(s) will be interpreted as set forth in the *Supplemental Examination Guidelines for Determining the Applicability of 35 USC 112 6<sup>th</sup>*.

21. The Examiners position that all pending claims are product claims and not product-by-process claims.

### ***Response to Arguments***

22. Applicant's arguments filed on January 09, 2008, have been fully considered but they are not persuasive.

23. In response to Applicant's argument that “*the Park et al. reference fails to disclose sales processing device for receiving card issuing information from a mobile communication unit in which the sales processing device includes a “determination unit”*”, However the Examiner respectfully disagrees. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed

Art Unit: 3621

invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Park in at least paragraph [0222] discloses an unmanned automatic vending machine 420 which includes a controller 422 for controlling the operation of product sales and a recorder 423 for recording particulars of sales. Park further discloses in at least paragraph [0223] receiving card information by the controller 422 which checks if the received card information is significant information thereby determining the validity of card. This step is performed by the controller 422 alone without passing through a card company. That is, the vending machine determines the validity of the card alone without a particular dedicated line to perform a credit card information inquiry and a transaction approval by the card company.

24. In response to Applicant's argument that Park et. Al reference does not disclose a sales processing device that includes a *“fourth generation means” to encrypt first information separated by a separating means in the sales processing devices*; however, the Examiner respectfully disagrees. Park in at least paragraph [0188] discloses decoding a received card information with an encryption key and then restores the decoded card information into card information. Furthermore, double or multiple layers of encryption is also old and well know in the art for protecting confidential information and increasing secrecy. That is by encrypting credit card information twice with some block cipher, either with the same key or by using different keys, the resultant encryption becomes stronger in all circumstances. And by using three encryptions, we would expect to achieve a yet greater level of security.

***Conclusion***

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mamon Obeid whose telephone number is (571) 270-1813. The examiner can normally be reached on Mon-Fri 9:30 AM- 6:00 PM.

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

27. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mamon Obeid  
Examiner  
Art Unit: 3621  
February 4, 2008

/ANDREW J. FISCHER/  
Supervisory Patent Examiner, Art Unit 3621